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Substitute for form 1449A/B/PTO				<i>Complete If Known</i>	
				Application Number	10/729,357-Conf. #8259
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	H. D. Wilkins
Sheet	1	of	11	Attorney Docket Number	291958238US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (# known)			
HW	AA*	US-08/940,524	09-30-1997	BLECK ET AL.	
	AB*	US-09/114,105	07-11-1998	WOODRUFF ET AL.	
	AC*	US-09/679,928	10-05-2000	WOODRUFF ET AL.	
	AD*	US-1,526,644	02-17-1925	PINNEY	
	AE*	US-1,881,713	10-11-1932	LAUKEL	
	AF*	US-10/729,349	12-05-2003	KLOCKE	
	AG*	US-2,256,274	09-16-1941	BOEDECKER ET AL.	
	AH*	US-2002-0008036	01-24-2002	HUI WANG	
	AI*	US-2002-0032499	03-14-2002	GREGORY WILSON	
	AJ*	US-2002-0125141	09-12-2002	GREGORY WILSON	
	AK*	US-2002-0139678	10-03-2002	GREGORY WILSON	
	AL*	US-2003-0038035	02-27-2003	GREGORY WILSON	
	AM*	US-2003-0062258	04-03-2003	DANIEL WOODRUFF	
	AN*	US-2003-0070918	04-17-2003	KYLE HANSON	
	AO*	US-2003-0127337	07-10-2003	KAYLE HANSON	
	AP*	US-2004-0031693	02-19-2004	LINLIN CHEN	
	AQ*	US-2004-0055877	03-25-2004	GREGORY WILSON	
	AR*	US-2004-0099533	05-27-2004	GREGORY WILSON	
	AS*	US-2004-0188259	09-30-2004	GREGORY WILSON	
	AT*	US-2005-0087439-A1	04-28-2005	HANSON ET AL.	
	AU*	US-3,309,263	03-14-1967	GROBE	
	AV*	US-3,616,284	10-26-1971	BODMER ET AL.	
	AW*	US-3,664,933	05-23-1972	CLAUSS	
	AX*	US-3,706,635	12-19-1972	KOWALSKI	
	AY*	US-3,706,651	12-30-1970	LELAND	
	AZ*	US-3,716,462	02-13-1973	JENSEN	
	AA1*	US-3,798,003	03-19-1974	ENSLEY ET AL.	
	AB1*	US-3,798,033	03-19-1974	YOST, JR.	
	AC1*	US-3,878,066	04-15-1975	DETKE ET AL.	
	AD1*	US-3,930,963	01-06-1976	POLICHETTE ET AL.	
	AE1*	US-3,968,885	07-13-1976	HASSAN ET AL.	
	AF1*	US-4,000,046	12-28-1976	WEAVER	
	AG1*	US-4,022,679	05-10-1977	KOZIOL ET AL.	
	AH1*	US-4,030,015	10-20-1975	HERKO ET AL.	
	AI1*	US-4,046,105	09-06-1977	GOMEZ	
	AJ1*	US-4,072,557	02-07-1978	SCHIEL	
	AK1*	US-4,082,638	04-04-1978	JUMER	
	AL1*	US-4,113,577	09-12-1978	ROSS ET AL.	
▼	AM1*	US-4,134,802	01-16-1976	HERR	
	AN1*	US-4,137,867	02-06-1979	AIGO	
HW	AO1*	US-4,165,252	08-21-1979	GIBBS	

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HW	AP1*	US-4,170,959	10-16-1979	AIGO	
	AQ1*	US-4,222,834	09-16-1980	BACON ET AL.	
	AR1*	US-4,238,310	12-09-1980	ECKLER ET AL.	
	AS1*	US-4,246,088	01-20-1981	MURPHY ET AL.	
	AT1*	US-4,259,166	03-31-1981	WHITEHURST	
	AU1*	US-4,287,029	09-01-1981	KOICHI SHIMAMURA	
	AV1*	US-4,304,641	12-08-1981	GRANDIA ET AL.	
	AW1*	US-4,323,433	04-06-1982	DAVID M. LOCH	
	AX1*	US-4,341,629	07-27-1982	UHLINGER	
	AY1*	US-4,360,410	11-23-1982	FLETCHER ET AL.	
	AZ1*	US-4,378,283	03-29-1983	MICHAEL SEYFFERT	
	AA2*	US-4,384,930	05-24-1983	ECKLES	
	AB2*	US-4,391,694	07-05-1983	BENG T W. RUNSTEN	
	AC2*	US-4,422,915	12-27-1983	WIELONSKI ET AL.	
	AD2*	US-4,431,361	02-14-1984	BAYNE	
	AE2*	US-4,437,943	03-20-1984	ALEXANDER F. BECK	
	AF2*	US-4,440,597	04-03-1984	WELLS ET AL.	
	AG2*	US-4,443,117	04-17-1984	MURAMOTO ET AL.	
	AH2*	US-4,449,885	05-22-1984	RICHARD J. HERTEL	
	AI2*	US-4,451,197	05-29-1984	LANGE	
	AJ2*	US-4,463,503	08-07-1984	ROBERT D. APPLEGATE	
	AK2*	US-4,466,864	08-21-1984	DUANE E. BACON	
	AL2*	US-4,469,564	09-04-1984	OKINAKA ET AL.	
	AM2*	US-4,469,566	09-04-1984	WRAY	
	AN2*	US-4,475,823	10-09-1984	STONE	
	AO2*	US-4,480,028	10-30-1984	KATO ET AL.	
	AP2*	US-4,495,153	01-22-1985	MINORU MIDORIKAWA	
	AQ2*	US-4,495,453	01-22-1985	HAJIMU INABA	
	AR2*	US-4,500,394	02-19-1985	JOHN S. RIZZO	
	AS2*	US-4,529,480	07-16-1985	TROKHAN	
	AT2*	US-4,541,895	09-17-1985	ALBERT	
	AU2*	US-4,566,847	01-28-1986	TAKASHI MAEDA	
	AV2*	US-4,576,685	03-18-1986	GOFFREDO ET AL.	
	AW2*	US-4,576,689	03-18-1986	ALMAXUD M. MAKKAEV	
	AX2*	US-4,585,539	04-29-1986	EDSON	
	AY2*	US-4,604,177	08-05-1986	OLIVO G. SIVILOTTI	
	AZ2*	US-4,604,178	08-05-1986	DALE R. FIEGENER	
	AA3*	US-4,634,503	01-06-1987	DANIEL NOGAVICH	
	AB3*	US-4,639,028	01-27-1987	OLSON	
	AC3*	US-4,648,944	03-10-1987	GEORGE ET AL.	
	AD3*	US-4,670,126	06-02-1987	MESSER ET AL.	
	AE3*	US-4,685,414	08-11-1987	DIRICO	
▼	AF3*	US-4,687,552	08-18-1987	EARLY ET AL.	
	AG3*	US-4,693,017	09-15-1987	OEHLER ET AL.	
HW	AH3*	US-4,696,729	09-29-1987	SANTINI	

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HW	AI3*	US-4,715,934	12-29-1987	TAMMINEN	
	AJ3*	US-4,741,624	05-03-1988	BARROYER	
	AK3*	US-4,760,671	08-02-1988	WILLIAM R. WARD	
	AL3*	US-4,761,214	08-02-1988	EDMUND R. HINMAN	
	AM3*	US-4,770,590	09-13-1988	HUGUES ET AL.	
	AN3*	US-4,781,800	11-01-1988	LEE M. GOLDMAN	
	AO3*	US-4,800,818	01-31-1989	KAWAGUCHI ET AL.	
	AP3*	US-4,828,654	05-09-1989	RONALD G. REED	
	AQ3*	US-4,849,054	07-18-1989	KLOWAK	
	AR3*	US-4,858,539	08-22-1989	SCHUMANN	
	AS3*	US-4,864,239	09-05-1989	CASARCIA ET AL.	
	AT3*	US-4,868,992	09-26-1989	CRAFTS ET AL.	
	AU3*	US-4,898,647	02-06-1990	LUCE ET AL..	
	AV3*	US-4,902,398	02-20-1990	HOMSTAD	
	AW3*	US-4,906,341	03-06-1990	KOJI YAMAKAWA	
	AX3*	US-4,913,035	08-02-1988	VOHRINGER ET AL.	
	AY3*	US-4,924,890	05-15-1990	GILES ET AL.	
	AZ3*	US-4,944,650	07-31-1990	MATSUMOTO	
	AA4*	US-4,949,671	08-21-1990	DAVIS ET AL.	
	AB4*	US-4,951,601	08-28-1990	MAYDAN ET AL.	
	AC4*	US-4,959,278	09-25-1990	HIDENORI SHIMAUCH	
	AD4*	US-4,962,726	10-16-1990	MATSUSHITA ET AL.	
	AE4*	US-4,979,464	12-25-1990	KUNZE-CONCEWITZ ET AL.	
	AF4*	US-4,988,533	01-29-1991	FREEMAN ET AL.	
	AG4*	US-5,000,827	03-19-1991	VIRGIL E. SCHUSTER	
	AH4*	US-5,024,746	06-18-1991	STIERMAN ET AL.	
	AI4*	US-5,026,239	06-25-1991	CHIBA	
	AJ4*	US-5,048,589	09-17-1991	COOK ET AL.	
	AK4*	US-5,054,988	10-08-1991	SHIRAIWA	
	AL4*	US-5,055,036	10-08-1991	ASANO ET AL.	
	AM4*	US-5,061,144	10-29-1991	MASAMI AKIMOTO	
	AN4*	US-5,069,548	12-03-1991	BOEHNLEIN	
	AO4*	US-5,078,852	01-07-1992	IAN Y.K. YEE	
	AP4*	US-5,083,364	01-28-1992	OLBRICH ET AL.	
	AQ4*	US-5,096,550	03-17-1992	STEVEN T. MAYER	
	AR4*	US-5,110,248	05-05-1992	ASANO ET AL.	
	AS4*	US-5,115,430	05-19-1992	ELLEN L. HAHNE	
	AT4*	US-5,125,784	06-30-1992	ASANO	
	AU4*	US-5,128,912	07-07-1992	HUG ET AL.	
	AV4*	US-5,135,636	08-04-1992	YEE ET AL.	
	AW4*	US-5,138,973	08-18-1992	DAVIS ET AL.	
	AX4*	US-5,146,136	09-08-1992	TOSHIRO OGURA	
▼	AY4*	US-5,151,168	09-29-1992	TERRY L. GILTON	
	AZ4*	US-5,155,336	10-13-1992	GRONET ET AL.	
HW	AA5*	US-5,156,174	10-20-1992	RAYMON F. THOMPSON	

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HW	AB5*	US-5,156,730	10-20-1992	ANILKUMAR C. BHATT	
	AC5*	US-5,168,886	12-08-1992	THOMPSON ET AL.	
	AD5*	US-5,168,887	12-08-1992	RAYMON F. THOMPSON	
	AE5*	US-5,169,408	12-08-1992	BIGGERSTAFF ET AL.	
	AF5*	US-5,172,803	12-22-1992	LEWIN	
	AG5*	US-5,174,045	12-29-1992	THOMPSON ET AL.	
	AH5*	US-5,178,512	01-12-1993	SKROBAK	
	AI5*	US-5,178,639	01-12-1993	NISHI	
	AJ5*	US-5,180,273	01-19-1993	SALAYA ET AL.	
	AK5*	US-5,183,377	02-02-1993	BECKER ET AL.	
	AL5*	US-5,186,594	02-16-1993	TOSHIMA ET AL.	
	AM5*	US-5,209,817	05-11-1993	UMAR M. AHMAD	
	AN5*	US-5,217,586	06-08-1993	MADHAV DATTA	
	AO5*	US-5,222,310	06-29-1993	RAYMON F. THOMPSON	
	AP5*	US-5,227,041	07-13-1993	BRUCE N. BROGDEN	
	AQ5*	US-5,228,232	07-20-1993	RODNEY MILES	
	AR5*	US-5,228,966	07-20-1993	SATOSHI MURATA	
	AS5*	US-5,230,371	07-27-1993	LEE	
	AT5*	US-5,232,511	08-03-1993	BERGMAN	
	AU5*	US-5,235,995	08-17-1993	BERGMAN ET AL.	
	AV5*	US-5,238,500	08-24-1993	BERGMAN	
	AW5*	US-5,252,137	10-12-1993	TATEYAMA ET AL.	
	AX5*	US-5,252,807	10-12-1993	CHIZINSKY	
	AY5*	US-5,256,262	10-26-1993	BLOMSTERBERG	
	AZ5*	US-5,256,274	10-26-1993	JAIME PORIS	
	AA6*	US-5,271,953	12-21-1993	LITTERAL	
	AB6*	US-5,271,972	12-21-1993	KWOK ET AL.	
	AC6*	US-5,301,700	04-12-1994	KAMIKAWA ET AL.	
	AD6*	US-5,302,464	04-12-1994	TAKUJI NOMURA	
	AE6*	US-5,306,895	04-26-1994	USHIKOSHI ET AL.	
	AF6*	US-5,314,294	09-24-1994	TAKAO TANIGUCHI	
	AG6*	US-5,316,642	05-31-1994	DAVID J. YOUNG	
	AH6*	US-5,326,455	07-05-1994	KUBO ET AL.	
	AI6*	US-5,330,604	07-19-1994	ALLUM ET AL.	
	AJ6*	US-5,332,271	07-26-1994	GRANT ET AL.	
	AK6*	US-5,332,445	07-26-1994	BERGMAN	
	AL6*	US-5,340,456	08-23-1994	MEHLER	
	AM6*	US-5,344,491	09-06-1994	MARIKO KATOU	
	AN6*	US-5,348,620	09-20-1994	HERMANS ET AL.	
	AO6*	US-5,364,504	11-15-1994	SMURKOSKI ET AL.	
	AP6*	US-5,366,785	11-22-1994	SAWDAI	
	AQ6*	US-5,366,786	11-22-1994	CONNOR ET AL.	
▼	AR6*	US-5,368,711	11-29-1994	JAIME PORIS	
	AS6*	US-5,372,848	12-13-1994	KIM J. BLACKWELL	
HW	AT6*	US-5,376,176	12-27-1994	ATSUSHI KURIYAMA	

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HW	AU6*	US-5,377,708	01-03-1995	ERIC J. BERGMAN	
	AV6*	US-5,388,945	02-14-1995	GARRIC ET AL.	
	AW6*	US-5,391,285	02-21-1995	WILLIAM H. LYITLE	
	AX6*	US-5,391,517	02-21-1995	GELATOS ET AL.	
	AY6*	US-5,405,518	04-11-1995	HSIEH ET AL.	
	AZ6*	US-5,411,076	05-02-1995	MATSUNAGA ET AL.	
	AA7*	US-5,421,987	06-06-1995	TZANAVARAS ET AL.	
	AB7*	US-5,427,674	06-27-1995	LANGENSKIOLD ET AL.	
	AC7*	US-5,429,686	07-04-1995	CHIU ET AL.	
	AD7*	US-5,429,733	07-04-1995	HIROFUMI ISHIDA	
	AE7*	US-5,431,803	07-11-1995	DIFRANCO ET AL.	
	AF7*	US-5,437,777	08-01-1995	SHUJI KISHI	
	AG7*	US-5,441,629	08-15-1995	KOSAKI	
	AH7*	US-5,442,416	08-15-1995	TATEYAMA ET AL.	
	AI7*	US-5,443,707	08-22-1995	MORI	
	AJ7*	US-5,445,484	08-29-1995	KATO ET AL.	
	AK7*	US-5,447,615	09-05-1995	ISHIDA	
	AL7*	US-5,454,405	10-03-1995	HAWES	
	AM7*	US-5,460,478	10-24-1995	AKIMOTO ET AL.	
	AN7*	US-5,464,313	11-07-1995	OHSAWA	
	AO7*	US-5,472,502	12-05-1995	WILLIAM T. BATCHELDER	
	AP7*	US-5,489,341	02-06-1996	BERGMAN ET AL.	
	AQ7*	US-5,500,081	03-19-1996	BERGMAN	
	AR7*	US-5,501,768	03-26-1996	HERMANS ET AL.	
	AS7*	US-5,508,095	04-16-1996	ALLUM ET AL.	
	AT7*	US-5,512,319	04-30-1996	COOK ET AL.	
	AU7*	US-5,514,258	05-07-1996	BRINKET ET AL.	
	AV7*	US-5,516,412	02-06-1996	ANDRICACOS ET AL.	
	AW7*	US-5,522,975	06-04-1996	ANDRICACOS ET AL.	
	AX7*	US-5,527,390	06-18-1996	ONO ET AL.	
	AY7*	US-5,544,421	08-13-1996	THOMPSON ET AL.	
	AZ7*	US-5,549,808	08-27-1996	MUKTA S. FAROOQ	
	AA8*	US-5,567,267	10-22-1996	KAZAMA ET AL.	
	AB8*	US-5,571,325	11-05-1996	TSUTOMU UEYAMA	
	AC8*	US-5,575,611	11-19-1996	THOMPSON ET AL.	
	AD8*	US-5,584,310	12-17-1996	ERIC J. BERGMAN	
	AE8*	US-5,584,971	12-17-1996	KOMINO	
	AF8*	US-5,593,545	01-14-1997	RUGOWSKI ET AL.	
	AG8*	US-5,597,460	01-28-1997	H. VINCENT REYNOLDS	
	AH8*	US-5,597,836	01-28-1997	HACKLER ET AL.	
	AI8*	US-5,600,532	02-04-1997	MICHIIYA ET AL.	
	AJ8*	US-5,609,239	03-11-1997	SCHLECKER	
	AK8*	US-5,620,581	04-15-1997	ANG	
	AL8*	US-5,639,206	06-17-1997	ODA ET AL.	
	HW AM8*	US-5,639,316	06-17-1997	CYRIL CABRAL	

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HW	AN8*	US-5,641,613	06-24-1997	BOFF ET AL.
	AQ8*	US-5,650,082	07-22-1997	ANDERSON
	AP8*	US-5,651,823	07-29-1997	PARODI ET AL.
	AQ8*	US-5,658,387	08-19-1997	TIMOTHY J. REARDON
	AR8*	US-5,660,472	08-26-1997	PEUSE ET AL.
	AS8*	US-5,660,517	08-26-1997	THOMPSON ET AL.
	AT8*	US-5,662,788	09-02-1997	GURTEJ SANDHU
	AU8*	US-5,664,337	09-09-1997	DAVIS ET AL.
	AV8*	US-5,670,034	09-23-1997	KENNETH J. LOWERY
	AW8*	US-5,676,337	10-14-1997	GIRAS ET AL.
	AX8*	US-5,677,118	10-14-1997	SPARA ET AL.
	AY8*	US-5,678,320	10-21-1997	THOMPSON ET AL.
	AZ8*	US-5,681,392	10-28-1997	EUGENE A. SWAIN
	AA9*	US-5,683,564	11-04-1997	REYNOLDS
	AB9*	US-5,684,654	11-04-1997	SEARLE ET AL.
	AC9*	US-5,684,713	11-04-1997	ASADA ET AL.
	AD9*	US-5,700,127	12-23-1997	JUNJI HARADA
	AE9*	US-5,711,646	01-27-1998	UEDA ET AL.
	AF9*	US-5,723,028	03-03-1998	JAIME PORIS
	AG9*	US-5,731,678	03-24-1998	ZILA ET AL.
	AH9*	US-5,744,019	04-28-1998	ANG
	AI9*	US-5,746,565	05-05-1998	TEPOLT
	AJ9*	US-5,747,098	05-05-1998	LARSON
	AK9*	US-5,754,842	05-19-1998	MINAGAWA
	AL9*	US-5,755,948	05-26-1998	LAZARO ET AL.
	AM9*	US-5,759,006	06-02-1998	MIYAMOTO ET AL.
	AN9*	US-5,762,751	06-09-1998	MARTIN C. BLECK
	AO9*	US-5,765,444	06-16-1998	PAUL BACCHI
	AP9*	US-5,765,889	06-16-1998	NAM ET AL.
	AQ9*	US-5,776,327	07-07-1998	BOTT'S ET AL.
	AR9*	US-5,785,826	07-28-1998	ALEX GREENSPAN
	AS9*	US-5,788,829	08-04-1998	JOSHI ET AL.
	AT9*	US-5,802,856	08-09-1998	SCHAPER ET AL.
	AU9*	US-5,829,791	11-03-1998	KOTSUBO ET AL.
	AV9*	US-5,843,296	12-01-1998	GREESPA
	AW9*	US-5,871,626	02-16-1999	DOUGLAS E. CRAFTS
	AX9*	US-5,871,805	01-01-2001	JEROME LEMELSON
	AY9*	US-5,882,498	03-16-1999	VALERY DUBIN
	AZ9*	US-5,892,207	04-06-1999	KAWAMURA ET AL.
	AAA*	US-5,904,827	05-18-1999	REYNOLDS
	ABA*	US-5,908,543	06-01-1999	TAKASHI MATSUNAMI
	ACA*	US-5,925,227	07-20-1999	KOBAYASHI ET AL.
V	ADA*	US-5,932,077	08-03-1999	H. VINCENT REYNOLDS
	AEA*	US-5,937,142	08-10-1999	MOSLEHI ET AL.
HW	AFA*	US-5,957,836	09-28-1999	JOHNSON

Examiner Signature	Date Considered
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Substitute for form 1449A/B/PTO				<i>Complete if Known</i>	
				Application Number	10/729,357-Conf. #8259
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	H. D. Wilkins
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HW	AGA*	US-5,980,706	11-09-1999	MARTIN BLECK	
	AHA*	US-5,985,126	11-16-1999	MARTIN C. BLECK	
	AIA*	US-5,989,397	11-23-1999	LAUBE ET AL.	
	AJA*	US-5,989,406	11-23-1999	CHARLES P. BEETZ	
	AKA*	US-5,998,123	12-07-1999	TANAKA ET AL.	
	ALA*	US-5,999,886	12-07-1999	MARTIN ET AL.	
	AMA*	US-6,001,235	12-14-1999	ARKEN ET AL.	
	ANA*	US-6,004,828	12-21-1999	KYLE M. HANSON	
	AOA*	US-6,017,820	01-25-2000	TING ET AL.	
	APA*	US-6,027,631	02-22-2000	ELIOT K. BROADBENT	
	AQA*	US-6,028,986	02-22-2000	SONG	
	ARA*	US-6,051,284	04-18-2000	JOSHUA BYRNE	
	ASA*	US-6,053,687	04-25-2000	THOMAS I. KIRKPATRICK	
	ATA*	US-6,072,160	06-06-2000	BAHL	
	AUA*	US-6,072,163	06-06-2000	ARMSTRONG ET AL.	
	AVA*	US-6,074,544	06-13-2000	JONATHAN D. REID	
	AWA*	US-6,080,288	06-27-2000	SCHWARTZ ET AL.	
	AXA*	US-6,080,291	06-27-2000	WOODRUFF ET AL.	
	AYA*	US-6,080,691	06-27-2000	LINDSAY ET AL.	
	AZA*	US-6,086,680	07-11-2000	FOSTER ET AL.	
	AAB*	US-6,090,260	07-18-2000	SATOSHI INOUE	
	ABB*	US-6,091,498	07-18-2000	KYLE HANSON	
	ACB*	US-6,099,702	08-08-2000	JONATHAN D. REID	
	ADB*	US-6,099,712	08-08-2000	THOMAS L. RITZDORF	
	AEB*	US-6,103,085	08-15-2000	WOO ET AL.	
	AFB*	US-6,107,192	08-22-2000	SUBRAH MANYAN ET AL.	
	AGB*	US-6,108,937	08-29-2000	RAAIJMAKERS	
	AHB*	US-6,110,011	08-29-2000	SASSON SOMEKH	
	AIB*	US-6,110,346	08-29-2000	JONATHAN D. REID	
	AJB*	US-6,130,415	10-10-2000	KNOOT	
	AKB*	US-6,136,163	10-24-2000	ROBIN CHEUNG	
	ALB*	US-6,139,703	10-31-2000	HANSON ET AL.	
	AMB*	US-6,139,712	10-31-2000	EVAN E. PATTON	
	ANB*	US-6,140,234	10-31-2000	UZOAH ET AL.	
	AOB*	US-6,143,147	11-07-2000	JELINEK	
	APB*	US-6,143,155	01-01-2001	JOHN A. ADAMS	
	AQB*	US-6,151,532	11-21-2000	BARONE ET AL.	
	ARB*	US-6,156,167	12-05-2000	EVAN E. PATTON	
	ASB*	US-6,157,106	12-05-2000	TIETZ ET AL.	
	ATB*	US-6,159,354	12-12-2000	ROBERT J. CONTOLINI	
	AUB*	US-6,162,344	12-19-2000	JONATHAN D. REID	
	AVB*	US-6,162,488	12-19-2000	GEVELBER ET AL.	
▼	AWB*	US-6,168,695	01-02-2001	DANIEL J. WOODRUFF	
	AXB*	US-6,174,425	01-16-2001	SIMPSON ET AL.	
HW	AYB*	US-6,174,796	01-16-2001	TAKAGI ET AL.	

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				Art Unit	1745
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HW	AZB*	US-6,179,983	01-30-2001	JONATHAN DAVID REID	
	AAC*	US-6,184,068	02-06-2001	OHTANI ET AL.	
	ABC*	US-6,193,859	02-27-2001	ROBERT J. CONTOLINI	
	ACC*	US-6,199,301	03-13-2001	WALLACE	
	ADC*	US-6,218,097	04-17-2001	BELL ET AL.	
	AEC*	US-6,221,230	01-01-2001	HIROMITSU TAKEUCHI	
	AFC*	US-6,228,232	05-08-2001	DANIEL J WOODRUFF	
	AGC*	US-6,234,738	05-22-2001	KAZUO KIMATA	
	AHC*	US-6,251,238	06-26-2001	KAUFMAN ET AL.	
	AIC*	US-6,251,528	06-26-2001	UZOH ET AL.	
	AJC*	US-6,254,742	07-03-2001	HANSON ET AL.	
	AKC*	US-6,258,220	07-10-2001	YEZDI DORDI	
	ALC*	US-6,261,433	07-17-2001	UZIEL LANDAU	
	AMC*	US-6,270,647	08-07-2001	LYNDON W. GRAHAM	
	ANC*	US-6,277,263	08-21-2001	LINLIN CHEN	
	AOC*	US-6,278,089	08-21-2001	YOUNG ET AL.	
	APC*	US-6,280,183	08-28-2001	MAYUR ET AL.	
	AQC*	US-6,280,582	08-28-2001	WOODRUFF ET AL.	
	ARC*	US-6,280,583	08-28-2001	WOODRUFF ET AL.	
	ASC*	US-6,297,154	10-02-2001	GROSS ET AL.	
	ATC*	US-6,303,010	10-16-2001	WOODRUFF ET AL.	
	AUC*	US-6,309,520	10-30-2001	WOODRUFF ET AL.	
	AVC*	US-6,309,524	10-30-2001	WOODRUFF ET AL.	
	AWC*	US-6,318,951	11-20-2001	WAYNE J. SCHMIDT	
	AXC*	US-6,322,112	11-27-2001	FRANKLIN DUNCAN	
	AYC*	US-6,322,677	11-27-2001	DANIEL WOODRUFF	
	AZC*	US-6,342,137	01-29-2002	DANIEL WOODRUFF	
	AAD*	US-6,365,729	01-01-2001	SANJAY TYAGI	
	ABD*	US-6,391,166	05-21-2002	HUI WANG	
	ACD*	US-6,402,923	06-11-2002	STEVEN MAYER	
	ADD*	US-6,409,892	06-25-2002	WOODRUFF ET AL.	
	AED*	US-6,428,660	08-06-2002	WOODRUFF ET AL.	
	AFD*	US-6,428,662	08-06-2002	WOODRUFF ET AL.	
	AGD*	US-6,444,101	03-14-2002	JOSEPH STEVENS	
	AHD*	US-6,471,913	10-29-2002	WEAVER ET AL.	
	AID*	US-6,481,956	11-19-2002	CHRISTOPHER A. HOFMEISTER	
	AJD*	US-6,491,806	12-10-2002	VALERY DUBIN	
	AKD*	US-6,497,801	12-24-2002	DANIEL J WOODRUFF	
	ALD*	US-6,527,920	03-04-2003	MAYER ET AL.	
	AMD*	US-6,562,421	11-07-2002	GO SUDO	
	AND*	US-6,565,729	01-24-2002	LINLIN CHEN	
	AOD*	US-6,569,297	06-27-2002	GREGORY WILSON	
▼	APD*	US-6,599,412	07-29-2003	LYNDON GRAHAM	
	AQD*	US-6,623,609	09-27-2001	RANDY HARRIS	
	HW ARD*	US-6,632,334	12-05-2002	TIMOTHY ANDERSON	

Examiner Signature	Date Considered
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				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	H. D. Wilkins
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HW	ASD*	US-6,654,122	11-25-2003	KYLE HANSON	
	ATD*	US-6,660,137	01-24-2002	GREGORY WILSON	
	AUD*	US-6,672,820	01-06-2004	KYLE HANSON	
	AVD*	US-6,678,055	05-29-2003	OFER DU-NOUR	
	AWD*	US-6,699,373	08-15-2002	DANIEL WOODRUFF	
	AXD*	US-6,709,562	01-01-2001	PANAYOTIS C. ANDRICACOS	
	AYD*	US-6,749,390-A1	09-27-2001	WOODRUFF	
	AZD*	US-6,752,584	11-22-2001	DANIEL WOODRUFF	
	AAE*	US-6,755,954-A1	12-26-2002	MAYER ET AL.	
	ABE*	US-6,773,571	08-10-2004	MAYER ET AL.	
	ACE*	US-6,780,374-A1	07-25-2002	WEAVER ET AL.	
	ADE*	US-6,916,412	10-25-2001	WOODRUFF	
	AEE*	US-6,921,468-A1	04-25-2002	GRAHAM ET AL.	
	AFE*	US-60/129,055	04-13-1999	MCHUGH	
	AGE*	US-60/143,769	07-12-1999	MCHUGH	
	AHE*	US-60/182,160	02-14-2000	MCHUGH ET AL.	
	AIE*	US-60/206,663	05-24-2000	WILSON ET AL.	
	AJE*	US-60/294,690	05-30-2001	GIBBONS ET AL.	
↓	AKE*	US-60/316,597	08-31-2001	HANSON	
	ALE*	US-60/607,046	09-03-2004	KLOCKE	
HW	AME*	US-60/607,460	09-03-2004	KLOCKE	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
HW	BA	CA-873651	06/1971	Cronin, DC		
	BB	DE-195 25 666	10-02-1996	Huebsch et al.		✓
	BC	DE-41 14 427	11-05-1992	Moritz, Heiko		✓
	BD	EP-0 881 673 A2	05-08-1998	Intl Business Machines Corp		
	BE	EP-0 677 612 A2	10-18-1995	Kimberly-Clark Corp.		
	BF	EP-0 677 612 A3	10-18-1985	Kimberly-Clark Corp		
	BG	EP-0452939 B1	11-02-2000	Applied Materials, Inc.		
	BH	EP-1 069 213 A2	07-11-2000	Applied Materials Inc.		
	BI	EP-0582019 B1	10-18-1995	Intl Business Machines		
	BJ	EP-0 257 670	03-02-1988	Estham et al.		
	BK	EP-0544311 B1	05-15-1996	Dainippon Screen Mfg. Co. Ltd.		
	BL	EP-0 290 210	11-09-1988	Oki Electric Industry Co.		
	BM	EP-0 982 771 A1	08-17-1999	Lucent Technologies, Inc.		
	BN	EP-0 140 404 A1	08-16-1984	The Proctor & Gamble Co.		
	BO	EP-0047132 B1	07-03-1985	Heraeus Quarzschmelze		
↓	BQ	GB-2 279 372 A	06-23-1994	Kimberly-Clark Corp.		
	BR	GB-2 254 288 A	03-24-1992	Scapa Group Pic		
HW	BS	GB-2217107A	03-23-1989	Canon Kabushiki Kaisha		
Examiner Signature		Date Considered				

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				Examiner Name	H. D. Wilkins
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HW	BT	JP-1048442	02-22-1989	Texas Instr Japan	✓
	BU	JP-5146984	06-15-1993	Murata Mach Ltd.	✓
	BV	JP-7197299-A	08-01-1995	Casio Computer Co. Ltd.	✓
	BW	JP-4311591	11-04-1992	Sumitomo Metal Ind. Ltd.	✓
	BX	JP-10-083960	03-31-1998	Takashi	✓
	BY	JP-7113159-A	05-02-1995	Canon Inc.	✓
	BZ	JP-6073598-A	03-15-1994	Suganuma Keiichiro	✓
	BA1	JP-11080993-A	03-26-1999	Ebara Corp	✓
	BB1	JP-5195183-A	08-03-1993	Mitsubishi Electric Corp	✓
	BC1	JP-4144150	05-18-1992	Oki Electric Ind Co Ltd	✓
	BD1	JP-6017291-A	01-25-1994	NEC Corp	✓
	BE1	JP-5211224	08-20-1993	Texan Instr Japan	✓
	BF1	JP-11036096-A	02-09-1999	NEC Corp	✓
	BG1	JP-6224202-A	08-12-1994	Oki Electric Ind Co. Ltd.	✓
	BH1	WO-02/99165	12-12-2002	Semitool, Inc.	
	BI1	WO-00/61498	10-19-2000	Wilson et al.	
	BJ1	WO-02/02808	01-20-2000	Semitool, Inc.	
	BK1	WO-02/97165	12-05-2002	Semitool, Inc.	
	BL1	WO-90/00476	01-25-1990	Tuckerman	
	BM1	WO-03/18874	09-03-2002	Semitool, Inc.	
	BN1	WO-99/41434	08-19-1999	ACM Research, Inc.	
	BO1	WO-00/03072	01-20-2000	Woodruff et al.	
	BP1	WO-99/40615	08-12-1999	Ritzdorf et al.	
	BQ1	WO-02/17203	02-28-2002	Sabre, Inc.	
	BR1	WO-01/91163	11-29-2001	Semitool, Inc.	
	BS1	WO-95/06326	03-02-1995	Semitool, Inc.	
	BU1	WO-00/61837	10-19-2000	Wilson et al.	
	BV1	WO-01/90434	11-29-2001	Semitool, Inc.	
	BW1	WO-00/32835	06-08-2000	Dordi et al.	
	BX1	WO-99/25904	05-27-1999	Reid et al.	
	BY1	WO-99/25905	05-27-1999	Patton et al.	
	BZ1	WO-99/16936	04-08-1996	Semitool, Inc.	
	BA2	WO-00/02675	01-02-2000	Semitool, Inc.	
by	BC2	WO-91/04213	04-04-1991	Wong et al.	
	BD2	WO-01/46910	02-25-1990	The Regents of Univ of CA	
V	BE2	WO-99/45745	09-10-1999	Armstrong et al.	
	BF2	WO-02/045476	06-13-2002	Semitool, Inc.	
HW	BG2	WO-95/20064	07-27-1995	Berg	

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				Examiner Name	H. D. Wilkins
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NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
HW	CA	CONTOLINI ET AL., "Copper Electroplating Process for Sub-Half-Micron ULSI Structures," VMIC Conference 1995 ISMIC - 04/95/0322, pgs 322-328, June 17-29, 1995			T ²
	CB	DEVARAJ et al., "Pulsed Electrodeposition of Copper," Plating & Surface Finishing, Pgs 72-78, August 1992			
	CC	DUBIN, "Copper Plating Techniques for ULSI Metallization," Advanced MicroDevices			
	CD	DUBIN, V.M., "Electrochemical Deposition of Copper for On-Chip Interconnects," Advanced MicroDevices			
	CE	GAUVIN et al., "The Effect of Chloride Ions on Copper Deposition," J. of Electrochemical Society, Vol 99, pgs 71-75, February 1952			
	CF	International Search Report for PCT/US02/28071; Applicant: Semitool, Inc., December 13, 2002, 4 pgs.			
	CG	International Search Report PCT/US02/17203; Semitool, Inc., December 31, 2002, 4 pgs.			
	CH	LEE, TIEN-YU TOM et al., "Application of a CFD Tool in Designing a Fountain Plating Cell for Uniform Bump Plating of Semiconductor Wafers," IEEE Transactions On Components, Packaging and Manufacturing Technology - Part B, February 1996, pp 131-137, Vol 19, No. 1, IEEE			
	CJ	LOWENHEIM, FREDERICK A., "Electroplating," January 1979, 12 pgs, McGraw-Hill Book Company, USA			
	CK	OSERO, N.M., "An Overview of Pulse Plating," Plating and Surface Finishing, March 1986			
	CL	PASSAL, F., "Copper Plating During the Last Fifty Years," Plating, pgs 628-638, June 1959			
	CM	PATENT ABSTRACT OF JAPAN, "Organic Compound and its Application," Publication No. 08-003153, Publication Date: January 9, 1996			
	CN	PATENT ABSTRACT OF JAPAN, "Partial Plating Device," Publication No. 01234590, Publication Date: Sept 19, 1989			
	CO	PATENT ABSTRACT OF JAPAN, "Plating Method" Publication No. 57171690, Publication Date: October 22, 1982			
	CP	PATENT ABSTRACT OF JAPAN, English Abstract Translation - Japanese Utility Model No. 2538705, Publication Date: August 25, 1992			
	CQ	PCT International Search Report for PCT/US02/17840, Applicant: Semitool, Inc., March 2003, 5 pages			
↓	CS	RITTER, G., et al., "Two-And Three-Dimensional Numerical Modeling of Copper Electroplating for Advanced ULSI Metallization," June 1999, 13 pgs, E-MRS Conference Symposium M. Basic Models to Enhance Reliability, Strasbourg, France			
HW	CT	SINGER, P., "Copper Goes Mainstream: Low k to Follow," Semiconductor International, pgs 67-70, November 1997.			

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
HW		JP-03-103840	11-04-1992	Uemura		
HW		JP-59-150094A	08-28-1984	Telchiku KK		

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